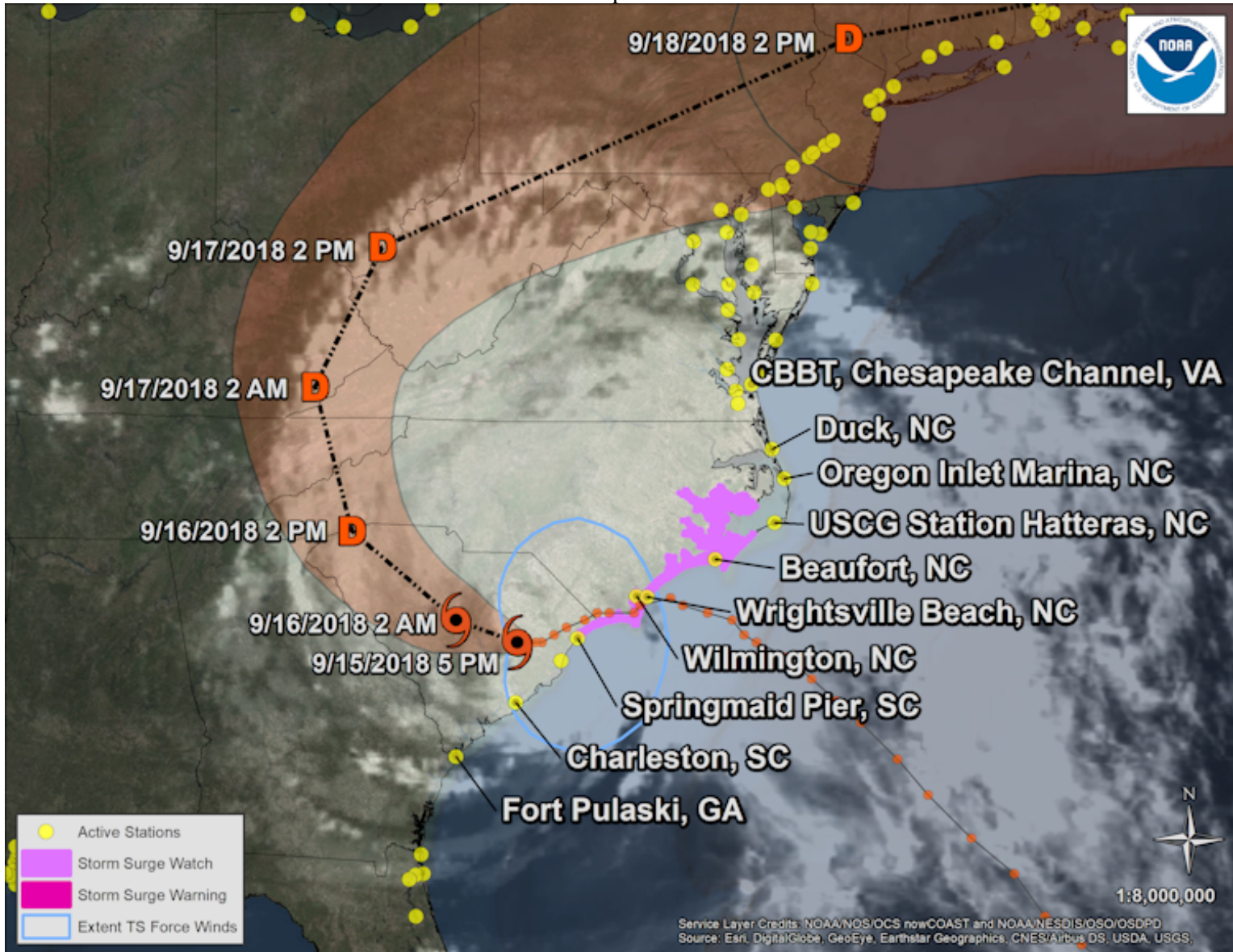




Tropical Storm Florence QuickLook Posted: 18:00 EDT 09/15/2018

NOAA and NOAA Partnership Stations Relative to the Storm



Storm Analysis

As of 09/15/2018 18:00 EDT, water levels along the North and South Carolina coast continue to be impacted by Florence. From Myrtle Beach, SC to the Chesapeake Bay entrance (including Pamlico Sound), water levels are between 1.2 and 2.5 feet above normal tide levels with the highest values being observed at Wilmington, NC. Water levels from Charleston, SC to Fort Pulaski, GA are running near normal and below normal tide levels due to offshore winds but water levels are beginning to rise.

Winds around the region range from 10-35 knots with the highest winds being recorded at Wrightsville Beach, NC with gusts near 40 knots. Barometric pressure is rising around the region.

Water Level and Meteorological plots available below are updated automatically. A line denoting Mean Higher High Water (MHHW) is displayed to provide an approximate indication of when flooding inundation may occur.

For additional real-time and historical inundation information for select stations affected by this storm, please visit Coastal Inundation Dashboard. For additional data, please see the Center for Operational Oceanographic Products & Services website.

For more information or archived products and reports, please visit the Storm QuickLook Homepage.

Analyst: RCL

Select National Hurricane Center Advisory:

Tropical Storm Florence Advisory Number 66
NWS National Hurricane Center Miami FL
500 PM EDT Sat Sep 15 2018

...CENTER OF FLORENCE CONTINUES ITS SLOW WESTWARD TREK ACROSS
EASTERN SOUTH CAROLINA...
...HEAVY RAINS AND CATASTROPHIC FLOODING CONTINUE ACROSS PORTIONS
OF NORTH CAROLINA AND SOUTH CAROLINA...

SUMMARY OF 500 PM EDT...2100 UTC...INFORMATION

LOCATION...33.6N 79.9W
ABOUT 60 MI...95 KM W OF MYRTLE BEACH SOUTH CAROLINA
ABOUT 45 MI...70 KM SSW OF FLORENCE SOUTH CAROLINA
MAXIMUM SUSTAINED WINDS...45 MPH...75 KM/H
PRESENT MOVEMENT...W OR 270 DEGREES AT 2 MPH...4 KM/H
MINIMUM CENTRAL PRESSURE...997 MB...29.44 INCHES

WATCHES AND WARNINGS

CHANGES WITH THIS ADVISORY:

The Tropical Storm Warning has been discontinued north of Surf City, North Carolina. All Storm Surge Warnings have been discontinued.

SUMMARY OF WATCHES AND WARNINGS IN EFFECT:

A Tropical Storm Warning is in effect for...
* South Santee River South Carolina to Surf City North Carolina

Interests elsewhere in the southeastern and mid-Atlantic states should monitor the progress of Florence due to the heavy rainfall threat.

For storm information specific to your area, including possible inland watches and warnings, please monitor products issued by your local National Weather Service forecast office.

DISCUSSION AND OUTLOOK

At 500 PM EDT (2100 UTC), the center of Tropical Storm Florence was located by NOAA Doppler radars, satellites, and surface observations near latitude 33.6 North, longitude 79.9 West. Florence is moving toward the west near 2 mph (4 km/h), and a slow westward motion is expected to continue through today. A turn toward the west-northwest and northwest is expected on Sunday. Florence is forecast to turn northward through the Ohio Valley by Monday.

Radar data, satellite-derived winds, and surface observations indicate that maximum sustained winds remain near 45 mph (75 km/h) with higher gusts, mainly to the northeast and east of the center in heavy rainbands over water. Gradual weakening is forecast while Florence moves farther inland during the next couple of days, and it is expected to weaken to a tropical depression later tonight.

Tropical-storm-force winds extend outward up to 150 miles (240 km) from the center. A sustained wind of 47 mph (76 km/h) with a gust to 55 mph (89 km/h) was recently reported at the Johnny Mercer Pier in Wrightsville Beach, North Carolina.

The estimated minimum central pressure based on nearby surface observations is 997 mb (29.44 inches).

HAZARDS AFFECTING LAND

STORM SURGE: Water levels along the coast of North and South Carolina are gradually receding. Some minor coastal flooding is still possible through Sunday. For information specific to your area, please see products issued by your local National Weather Service forecast office.

RAINFALL: Florence is expected to produce heavy and excessive rainfall in the following areas...

Southern and central portions of North Carolina into far northeast South Carolina...an additional 15 to 20 inches, with storm totals between 30 and 40 inches along the North Carolina coastal areas south of Cape Hatteras. This rainfall will continue to produce catastrophic flash flooding and prolonged significant river

flooding.

Remainder of northern South Carolina into western North Carolina and southwestern Virginia...5 to 10 inches, isolated 15 inches.

West-central Virginia into far eastern West Virginia, north of Roanoke and west of Charlottesville, 3 to 6 inches, isolated 8 inches. These rainfall amounts will result in life-threatening flash flooding and river flooding, along with an elevated risk for landslides.

A preliminary report from a cooperative observer near Swansboro, North Carolina, indicates that more than 30 inches of rain has fallen so far. That rainfall total breaks the tropical cyclone rainfall record of 24.06 inches for North Carolina set during Hurricane Floyd in 1999.

WIND: Tropical storm conditions will continue today in portions of the warning area along the coast and also over large portions of eastern North Carolina and extreme eastern South Carolina, with tropical-storm-force wind gusts spreading well inland.

TORNADOES: A few tornadoes are possible in southeastern North Carolina and northeastern South Carolina today through tonight.

SURF: Swells generated by Florence are affecting Bermuda, portions of the U.S. East Coast, and the northwestern and central Bahamas. These swells are likely to cause life-threatening surf and rip current conditions. Please consult products from your local weather office.

NEXT ADVISORY

Next intermediate advisory at 800 PM EDT.
Next complete advisory at 1100 PM EDT.

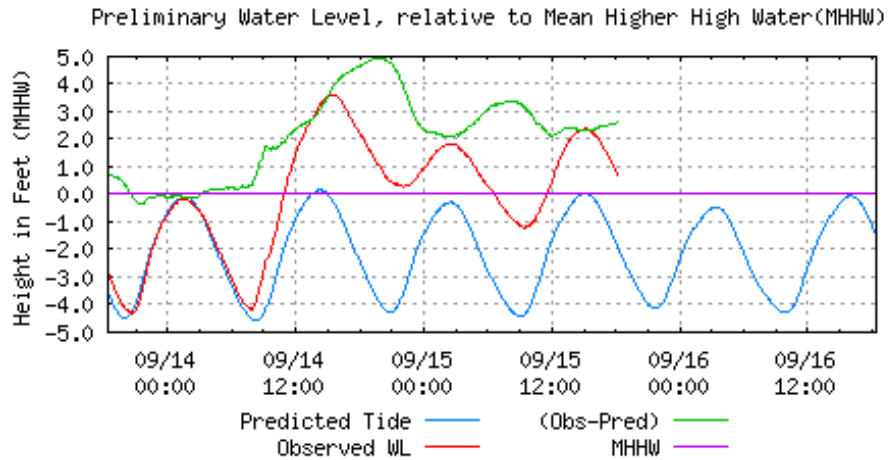
Forecaster Stewart

For the purpose of timely release, data contained within this QuickLook have undergone a "limited" NOS Quality Assurance/Control; however, the data have not yet undergone final verification. All data subject to NOS verification.

Jump to: [Wilmington - Water Level](#), [Wilmington - Barometric](#), [Wrightsville Beach - Water Level](#), [Wrightsville Beach - Winds](#), [Wrightsville Beach - Barometric](#), [Beaufort, Duke Marine Lab - Water Level](#), [Beaufort, Duke Marine Lab - Winds](#), [Beaufort, Duke Marine Lab - Barometric](#), [USCG Station Hatteras - Water Level](#), [USCG Station Hatteras - Winds](#), [USCG Station Hatteras - Barometric](#), [Oregon Inlet Marina - Water Level](#), [Oregon Inlet Marina - Winds](#), [Oregon Inlet Marina - Barometric](#), [Duck - Water Level](#), [Duck - Winds](#), [Duck - Barometric](#), [CBBT, Chesapeake Channel - Water Level](#), [CBBT, Chesapeake Channel - Winds](#), [CBBT, Chesapeake Channel - Barometric](#), [Springmaid Pier - Water Level](#), [Springmaid Pier - Barometric](#), [Charleston, Cooper River Entrance - Water Level](#),

Charleston, Cooper River Entrance - Winds, Charleston, Cooper River Entrance - Barometric, Fort Pulaski - Water Level, Fort Pulaski - Winds, Fort Pulaski - Barometric

NOAA/NOS/CO-OPS 8658120 Wilmington, NC



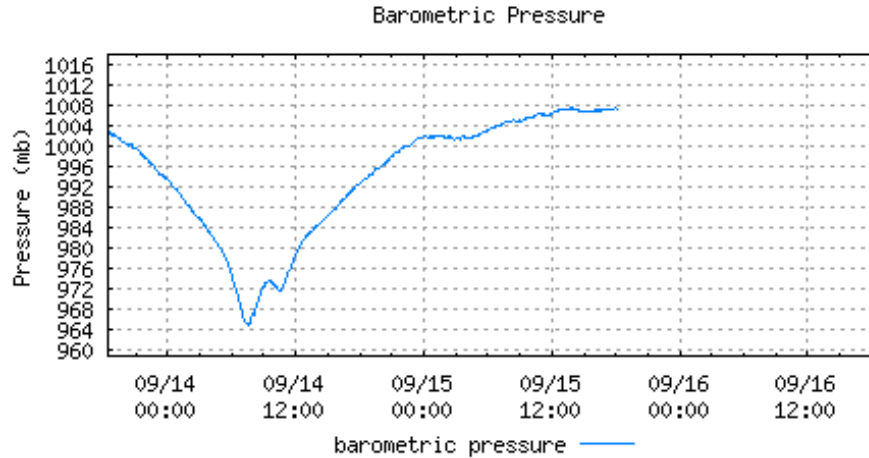
Last Observed Sample: 09/15/2018 18:12 (EDT). Data relative to MHHW

Observed: 0.68 ft. Predicted: -1.94 ft. Residual: 2.62 ft.

Historical Maximum Water Level: Oct 8 2016, 3.48 ft.

Next High Tide: 09/16/2018 03:22 (EDT), -0.46 ft.

NOAA/NOS/CO-OPS 8658120 Wilmington, NC

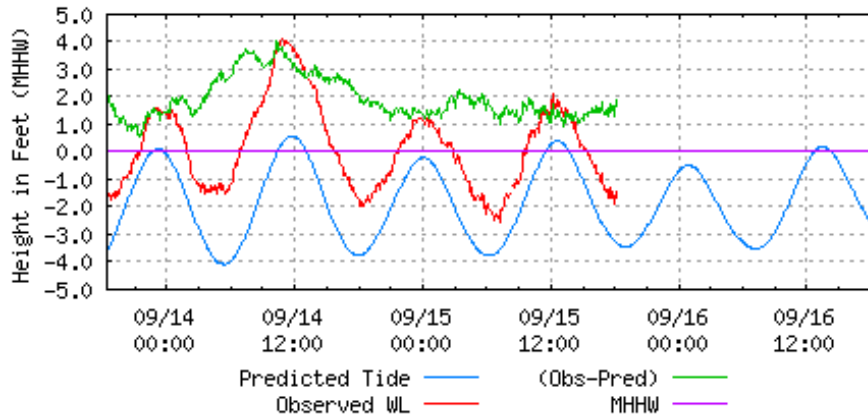


Last Observed Sample: 09/15/2018 18:12 (EDT)

Barometric Pressure: 1007.4 mb

NOAA/NOS/CO-OPS 8658163 Wrightsville Beach, NC

Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 09/15/2018 18:12 (EDT). Data relative to MHHW

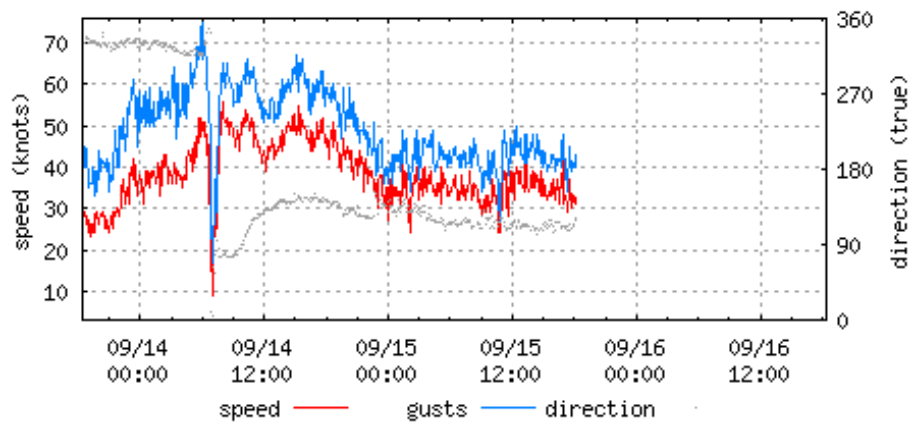
Observed: -1.45 ft. Predicted: -3.32 ft. Residual: 1.87 ft.

Historical Maximum Water Level: Oct 4 2015, 2.97 ft.

Next High Tide: 09/16/2018 00:53 (EDT), -0.49 ft.

NOAA/NOS/CO-OPS 8658163 Wrightsville Beach, NC

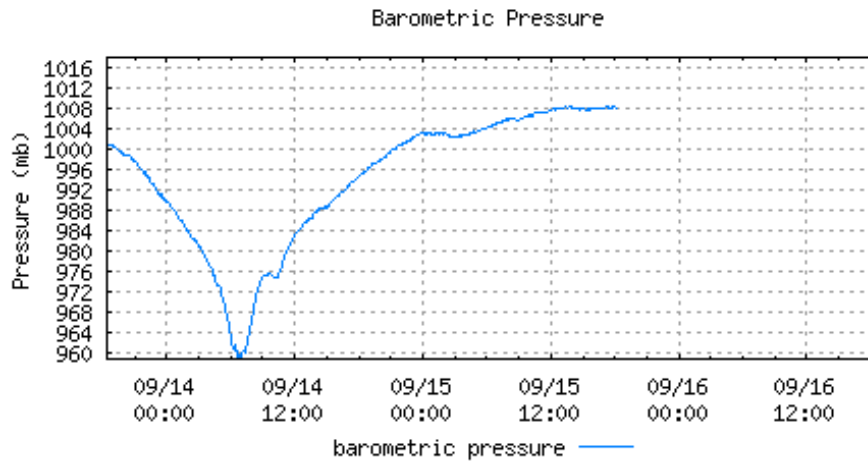
Wind Speed / Gusts / Direction



Last Observed Sample: 09/15/2018 18:12 (EDT)

Wind Speed: 31 knots Gusts: 43 knots Direction: 118° T

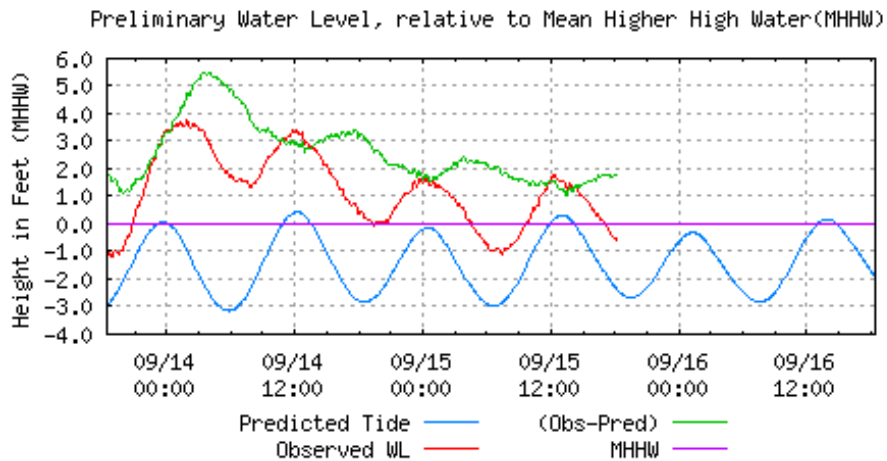
NOAA/NOS/CO-OPS 8658163 Wrightsville Beach, NC



Last Observed Sample: 09/15/2018 18:12 (EDT)

Barometric Pressure: 1008.0 mb

NOAA/NOS/CO-OPS 8656483 Beaufort, Duke Marine Lab, NC



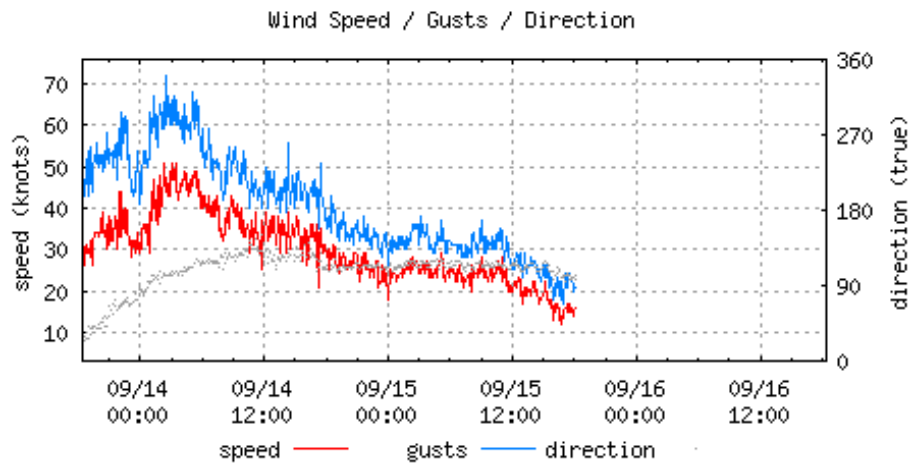
Last Observed Sample: 09/15/2018 18:12 (EDT). Data relative to MHHW

Observed: -0.62 ft. Predicted: -2.38 ft. Residual: 1.76 ft.

Historical Maximum Water Level: Sep 19 1955, 3.39 ft.

Next High Tide: 09/16/2018 01:18 (EDT), -0.32 ft.

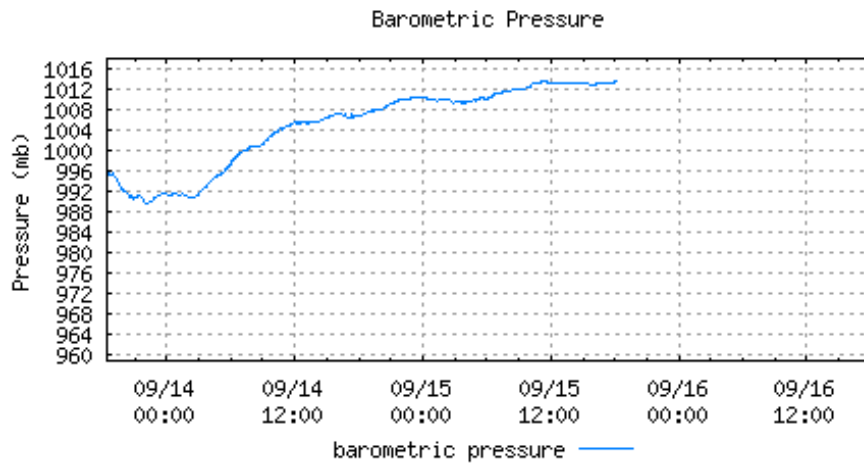
NOAA/NOS/CO-OPS 8656483 Beaufort, Duke Marine Lab, NC



Last Observed Sample: 09/15/2018 18:12 (EDT)

Wind Speed: 16 knots Gusts: 21 knots Direction: 97° T

NOAA/NOS/CO-OPS 8656483 Beaufort, Duke Marine Lab, NC

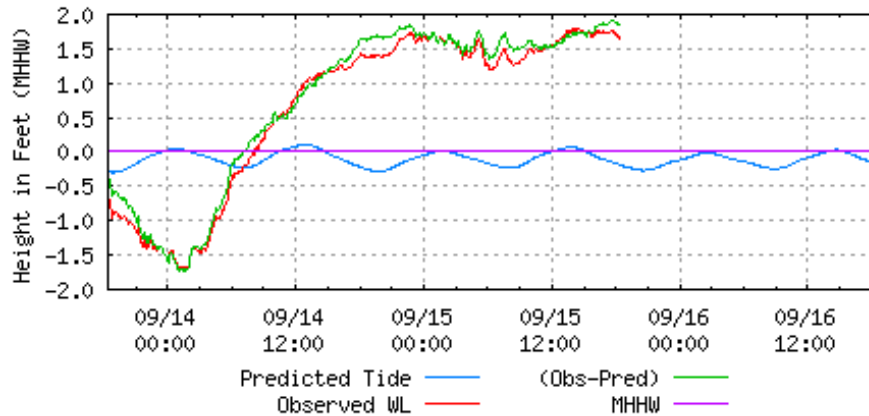


Last Observed Sample: 09/15/2018 18:12 (EDT)

Barometric Pressure: 1013.7 mb

NOAA/NOS/CO-OPS 8654467 USCG Station Hatteras, NC

Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 09/15/2018 18:24 (EDT). Data relative to MHHW

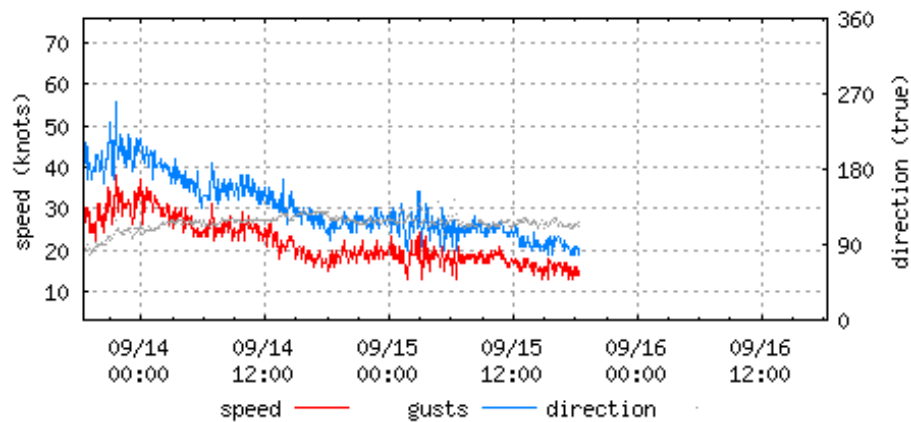
Observed: 1.66 ft. Predicted: -0.18 ft. Residual: 1.84 ft.

Historical Maximum Water Level: Oct 9 2016, 5.76 ft.

Next High Tide: 09/16/2018 02:33 (EDT), -0.01 ft.

NOAA/NOS/CO-OPS 8654467 USCG Station Hatteras, NC

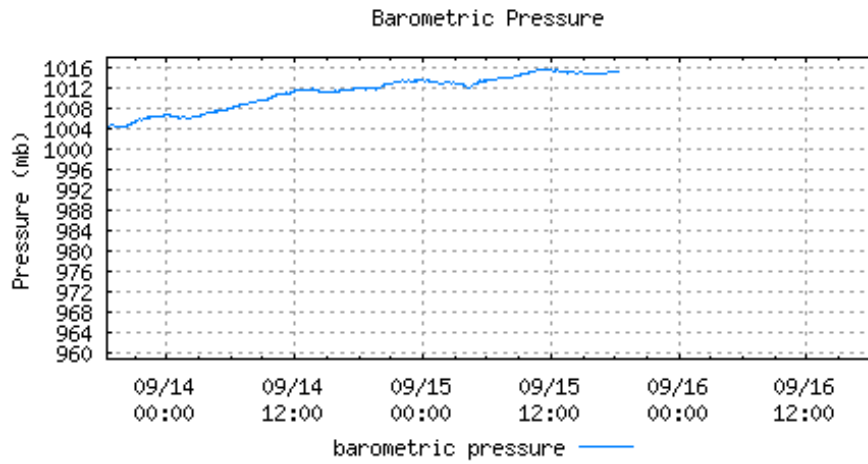
Wind Speed / Gusts / Direction



Last Observed Sample: 09/15/2018 18:24 (EDT)

Wind Speed: 14 knots Gusts: 19 knots Direction: 117° T

NOAA/NOS/CO-OPS 8654467 USCG Station Hatteras, NC

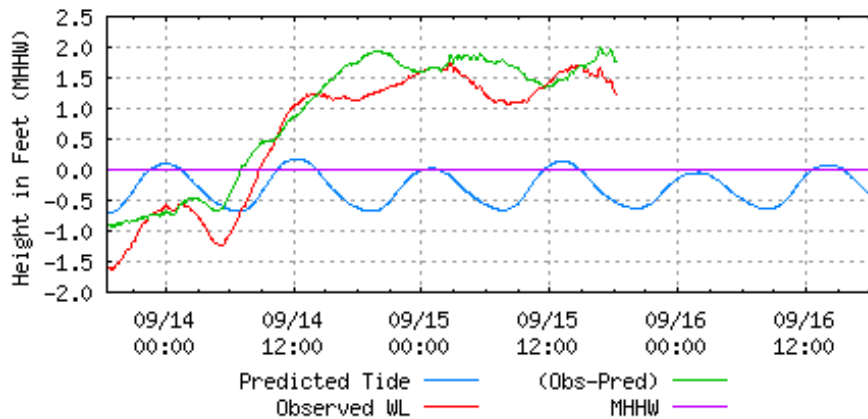


Last Observed Sample: 09/15/2018 18:24 (EDT)

Barometric Pressure: 1015.3 mb

NOAA/NOS/CO-OPS 8652587 Oregon Inlet Marina, NC

Preliminary Water Level, relative to Mean Higher High Water (MHHW)



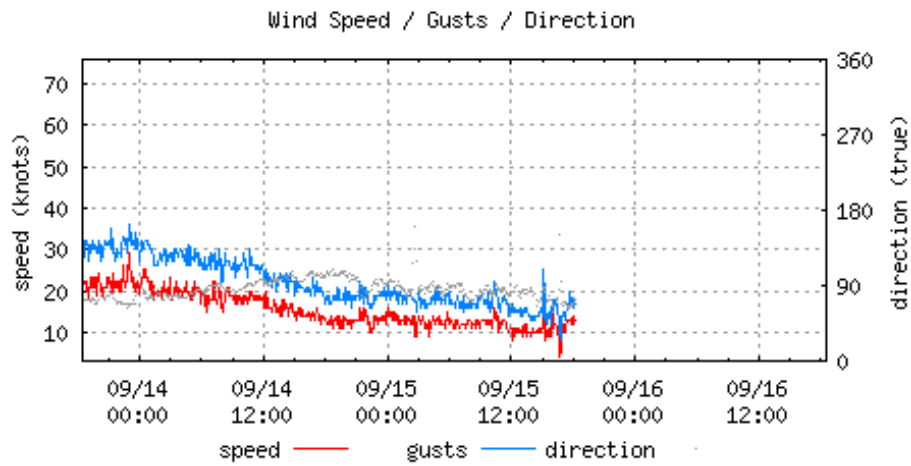
Last Observed Sample: 09/15/2018 18:12 (EDT). Data relative to MHHW

Observed: 1.25 ft. Predicted: -0.53 ft. Residual: 1.78 ft.

Historical Maximum Water Level: Aug 28 2011, 6.31 ft.

Next High Tide: 09/16/2018 01:57 (EDT), -0.05 ft.

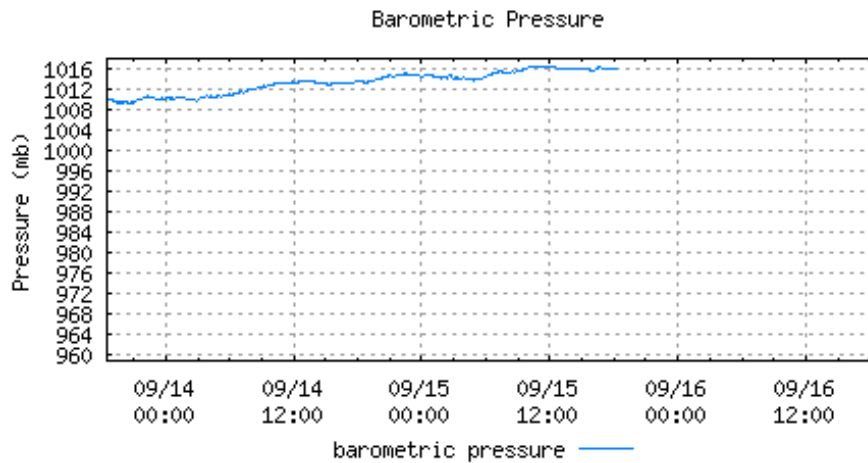
NOAA/NOS/CO-OPS 8652587 Oregon Inlet Marina, NC



Last Observed Sample: 09/15/2018 18:12 (EDT)

Wind Speed: 13 knots Gusts: 17 knots Direction: 72° T

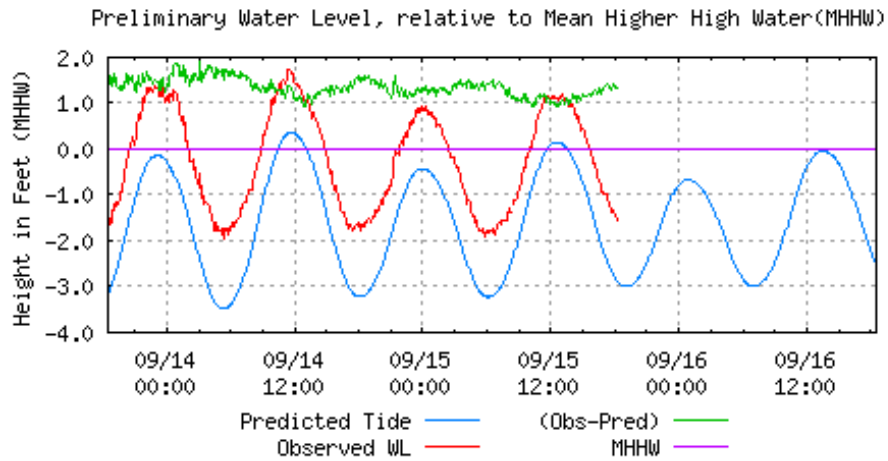
NOAA/NOS/CO-OPS 8652587 Oregon Inlet Marina, NC



Last Observed Sample: 09/15/2018 18:12 (EDT)

Barometric Pressure: 1016.1 mb

NOAA/NOS/CO-OPS 8651370 Duck, NC



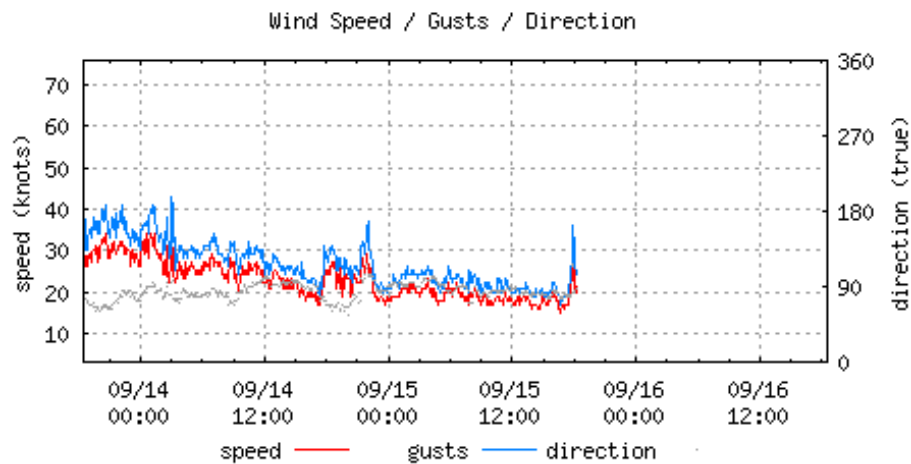
Last Observed Sample: 09/15/2018 18:18 (EDT). Data relative to MHHW

Observed: -1.55 ft. Predicted: -2.90 ft. Residual: 1.35 ft.

Historical Maximum Water Level: Sep 18 2003, 4.13 ft.

Next High Tide: 09/16/2018 00:50 (EDT), -0.67 ft.

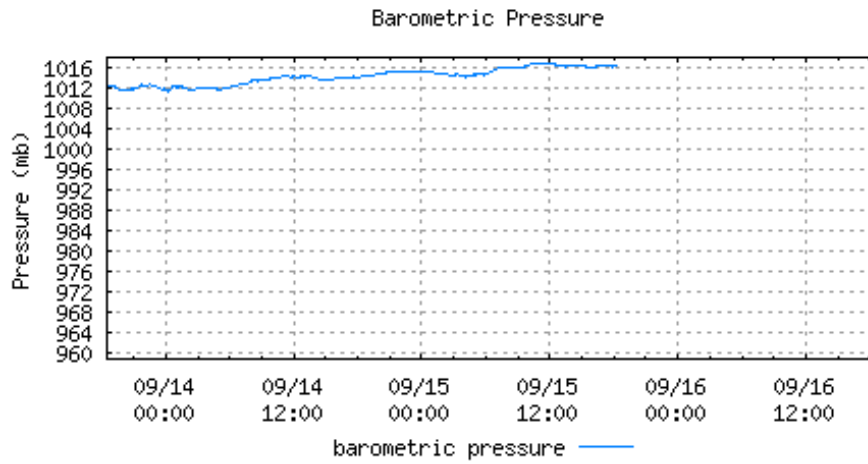
NOAA/NOS/CO-OPS 8651370 Duck, NC



Last Observed Sample: 09/15/2018 18:18 (EDT)

Wind Speed: 18 knots Gusts: 22 knots Direction: 96° T

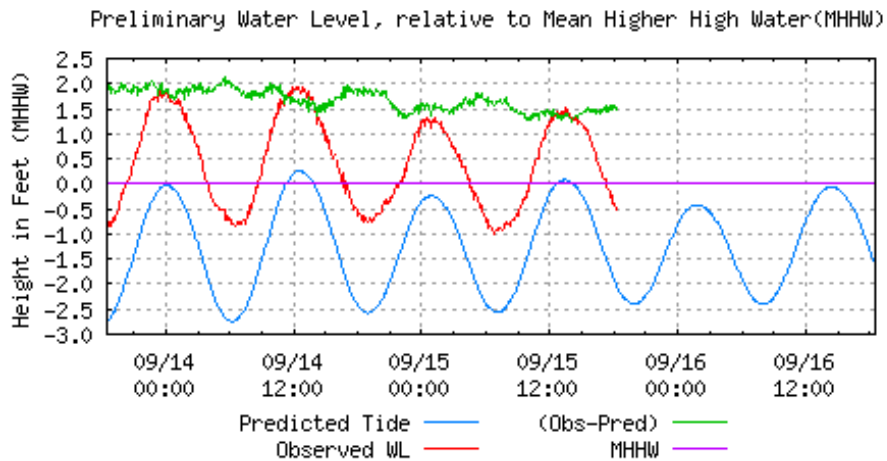
NOAA/NOS/CO-OPS 8651370 Duck, NC



Last Observed Sample: 09/15/2018 18:18 (EDT)

Barometric Pressure: 1016.4 mb

NOAA/NOS/CO-OPS 8638901 CBBT, Chesapeake Channel, VA



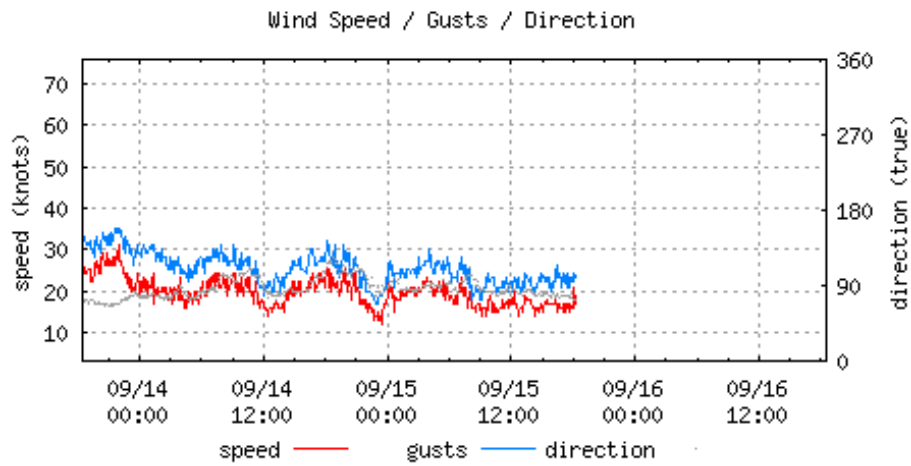
Last Observed Sample: 09/15/2018 18:12 (EDT). Data relative to MHHW

Observed: -0.52 ft. Predicted: -2.00 ft. Residual: 1.48 ft.

Historical Maximum Water Level: n/a

Next High Tide: 09/16/2018 01:47 (EDT), -0.42 ft.

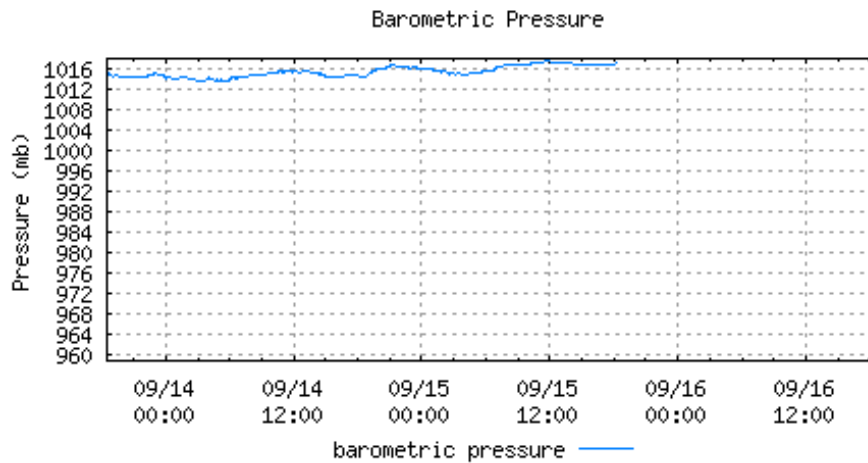
NOAA/NOS/CO-OPS 8638901 CBBT, Chesapeake Channel, VA



Last Observed Sample: 09/15/2018 18:12 (EDT)

Wind Speed: 17 knots Gusts: 23 knots Direction: 72° T

NOAA/NOS/CO-OPS 8638901 CBBT, Chesapeake Channel, VA

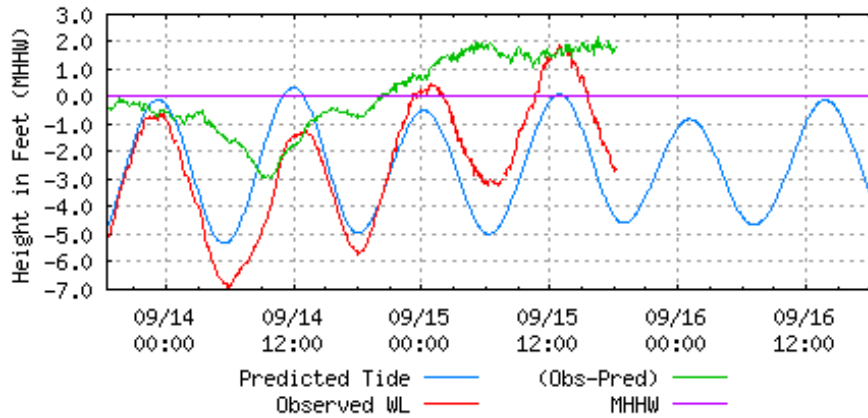


Last Observed Sample: 09/15/2018 18:12 (EDT)

Barometric Pressure: 1017.1 mb

NOAA/NOS/CO-OPS 8661070 Springmaid Pier, SC

Preliminary Water Level, relative to Mean Higher High Water (MHHW)



Last Observed Sample: 09/15/2018 18:18 (EDT). Data relative to MHHW

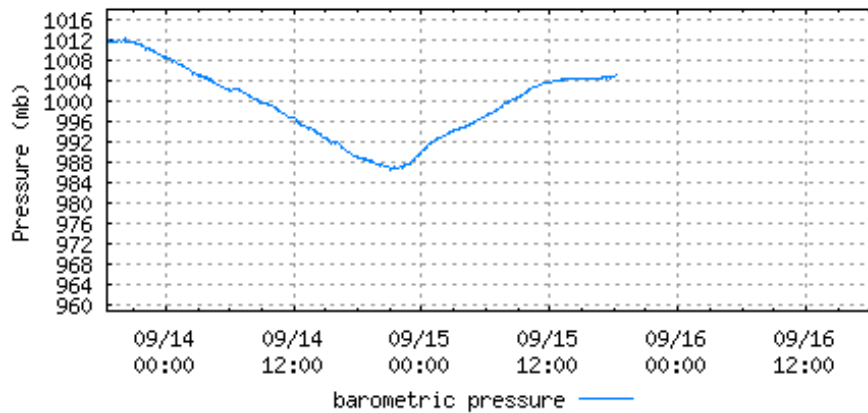
Observed: -2.76 ft. Predicted: -4.45 ft. Residual: 1.69 ft.

Historical Maximum Water Level: Sep 21 1989, 8.77 ft.

Next High Tide: 09/16/2018 01:07 (EDT), -0.81 ft.

NOAA/NOS/CO-OPS 8661070 Springmaid Pier, SC

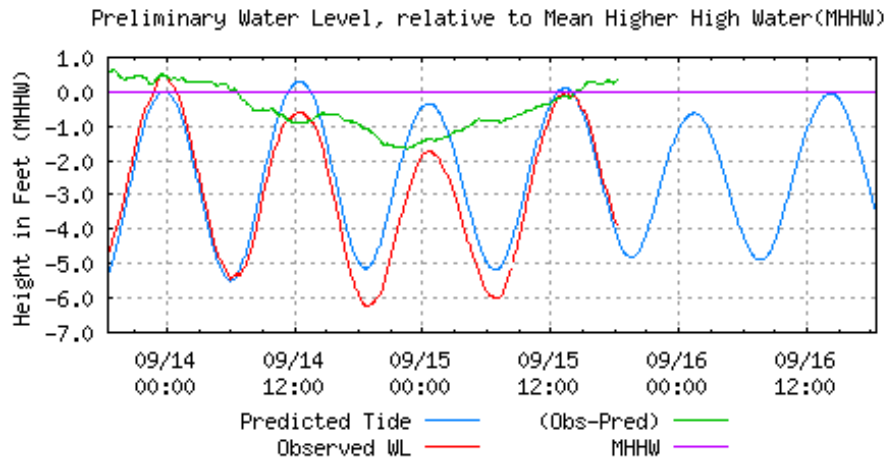
Barometric Pressure



Last Observed Sample: 09/15/2018 18:18 (EDT)

Barometric Pressure: 1005.1 mb

NOAA/NOS/CO-OPS 8665530 Charleston, Cooper River Entrance, SC



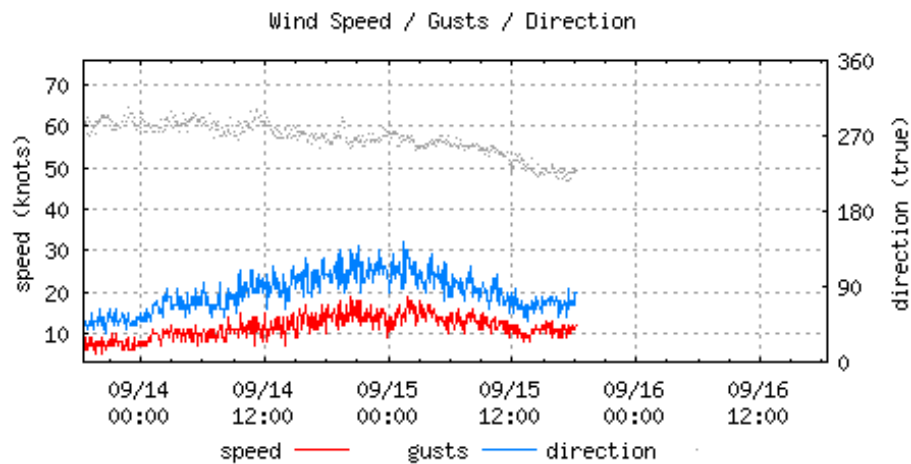
Last Observed Sample: 09/15/2018 18:18 (EDT). Data relative to MHHW

Observed: -3.97 ft. Predicted: -4.28 ft. Residual: 0.31 ft.

Historical Maximum Water Level: Sep 21 1989, 6.76 ft.

Next High Tide: 09/16/2018 01:25 (EDT), -0.63 ft.

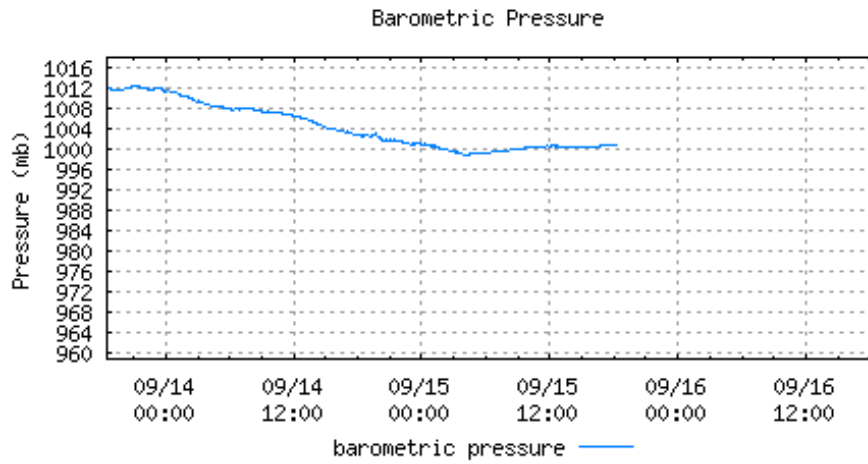
NOAA/NOS/CO-OPS 8665530 Charleston, Cooper River Entrance, SC



Last Observed Sample: 09/15/2018 18:18 (EDT)

Wind Speed: 14 knots Gusts: 19 knots Direction: 225° T

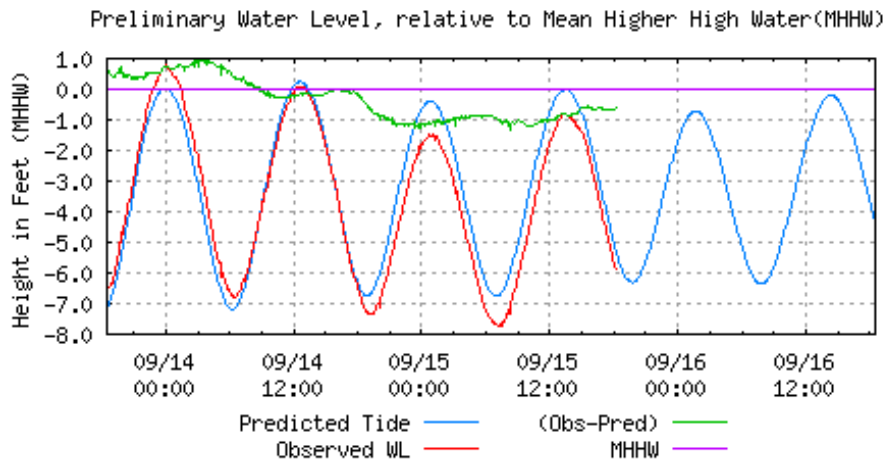
NOAA/NOS/CO-OPS 8665530 Charleston, Cooper River Entrance, SC



Last Observed Sample: 09/15/2018 18:18 (EDT)

Barometric Pressure: 1001.0 mb

NOAA/NOS/CO-OPS 8670870 Fort Pulaski, GA



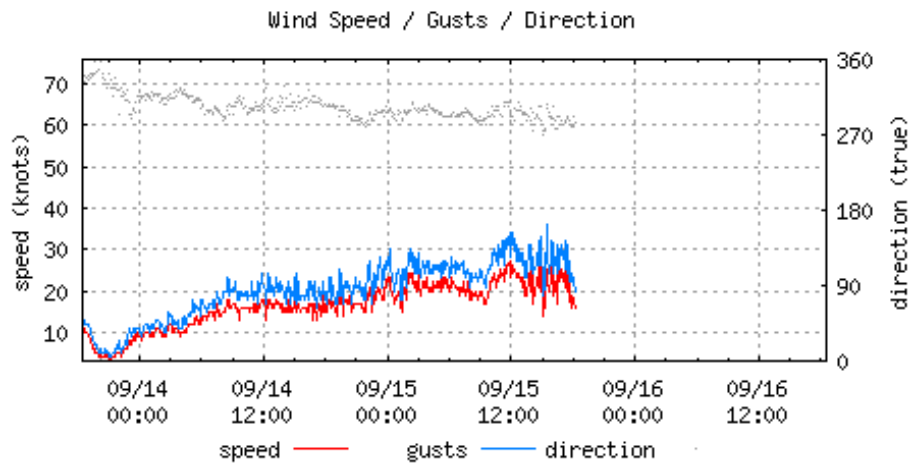
Last Observed Sample: 09/15/2018 18:12 (EDT). Data relative to MHHW

Observed: -5.89 ft. Predicted: -5.30 ft. Residual: -0.59 ft.

Historical Maximum Water Level: Oct 8 2016, 4.94 ft.

Next High Tide: 09/16/2018 01:40 (EDT), -0.72 ft.

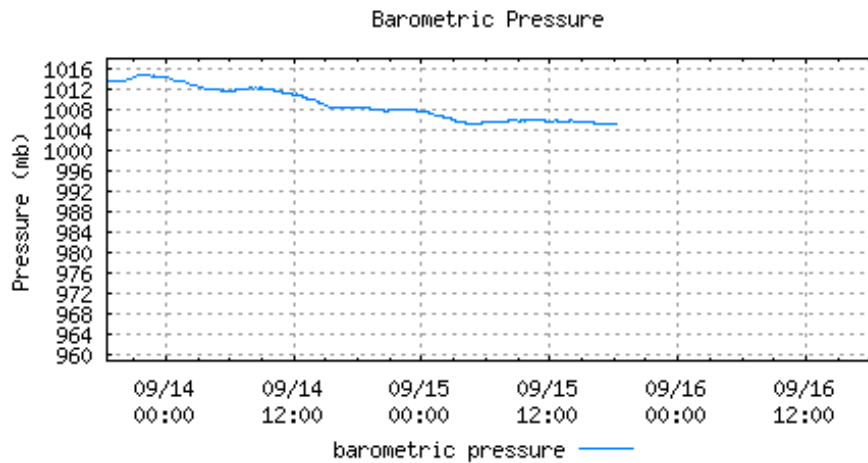
NOAA/NOS/CO-OPS 8670870 Fort Pulaski, GA



Last Observed Sample: 09/15/2018 18:12 (EDT)

Wind Speed: 16 knots Gusts: 20 knots Direction: 284° T

NOAA/NOS/CO-OPS 8670870 Fort Pulaski, GA



Last Observed Sample: 09/15/2018 18:12 (EDT)

Barometric Pressure: 1005.2 mb

Latest Water Level Observations on MHHW

Station ID	Station Name	Date/Time	Observed Water Level	Predicted Tide	Residual Water Level	24 Hour Maximum Storm Tide
8658120	Wilmington, NC	09/15/2018 18:12 (EDT)	0.68 ft	-1.94 ft	2.62 ft	2.40 ft
8658163	Wrightsville Beach, NC	09/15/2018 18:12 (EDT)	-1.45 ft	-3.32 ft	1.87 ft	2.09 ft
8656483	Beaufort, Duke Marine Lab, NC	09/15/2018 18:12 (EDT)	-0.62 ft	-2.38 ft	1.76 ft	1.77 ft
8654467	USCG Station Hatteras, NC	09/15/2018 18:24 (EDT)	1.66 ft	-0.18 ft	1.84 ft	1.80 ft
8652587	Oregon Inlet Marina, NC	09/15/2018 18:12 (EDT)	1.25 ft	-0.53 ft	1.78 ft	1.78 ft
8651370	Duck, NC	09/15/2018 18:18 (EDT)	-1.55 ft	-2.90 ft	1.35 ft	1.20 ft
8638901	CBBT, Chesapeake Channel, VA	09/15/2018 18:12 (EDT)	-0.52 ft	-2.00 ft	1.48 ft	1.51 ft
8661070	Springmaid Pier, SC	09/15/2018 18:18 (EDT)	-2.76 ft	-4.45 ft	1.69 ft	1.88 ft
8665530	Charleston, Cooper River Entrance, SC	09/15/2018 18:18 (EDT)	-3.97 ft	-4.28 ft	0.31 ft	-0.02 ft
8670870	Fort Pulaski, GA	09/15/2018 18:12 (EDT)	-5.89 ft	-5.30 ft	-0.59 ft	-0.82 ft

Center for Operational Oceanographic Products & Services (CO-OPS) | National Ocean Service (NOS)
National Oceanic and Atmospheric Administration | U.S. Department of Commerce